

25. SEXUALLY TRANSMITTED DISEASES

Number	Objective
1	Chlamydia
2	Gonorrhea
3	Primary and secondary syphilis
4	Herpes simplex virus type 2 infection
5	Human papillomavirus infection
6	Pelvic inflammatory disease
7	Fertility problems
8	Congenital syphilis
9	Neonatal STDs
10	Heterosexually transmitted HIV
11	STD clinics
12	School-based services
13	Medicaid contracts
14	Reimbursement for treatment of partners of STD patients
15	Training in STD-related services
16	Television messages
17	Screening for genital chlamydia
18	Screening of pregnant women
19	Screening in youth detention facilities and jails
20	Compliance with CDC Guidelines for the Treatment of STDs
21	Provider referral services for sexual partners
22	Reimbursement for counseling on reproductive health issues
23	Provider counseling during initial visits

Sexually Transmitted Diseases

Goal

A society where healthy sexual relationships, free of infection as well as coercion and unintended pregnancy, are the norm.

Terminology

(A listing of all acronyms used in this publication appears on page 27 of the Introduction.)

Bacterial and protozoal sexually transmitted diseases (STDs) refer to curable sexually transmitted infections caused by *Chlamydia trachomatis* (chlamydia), *Neisseria gonorrhoeae* (gonorrhea), *Treponema pallidum* (syphilis), *Haemophilus ducreyi* (chancroid), *Trichomonas vaginalis* (trichomoniasis), *bacterial vaginosis*, and other organisms. Chlamydia and gonorrhea cause an inflammatory reaction in the host. In women, these organisms can ascend into the upper reproductive tract where inflammatory reactions (pelvic inflammatory disease) can cause irreparable damage to the organs of reproduction. In its early stages, syphilis causes genital ulcers and other infectious lesions. Left untreated, syphilis enters a stage that damages the internal organs over a prolonged period of time. Acute bacterial STDs in a pregnant woman can cause potentially fatal congenital infections or perinatal complications, such as eye and lung infections, in the newborn. There are effective single dose antimicrobials that can cure chlamydia, gonorrhea, and syphilis (objectives 1, 2, 3).

Viral STDs refer to the sexually transmitted viral infections, human immunodeficiency virus (HIV) infection, herpes simplex virus type 2 (genital herpes), and human papillomavirus (HPV infection). Initial infections with these organisms may be asymptomatic or cause only mild symptoms. There are treatments but no cures for these infections that appear to remain in the body indefinitely. HIV infection is the virus that causes AIDS. Herpes can cause periodic outbreaks of painful genital lesions. Some strains of HPV cause genital warts, and others are important risk factors for cervical dysplasia and invasive cervical cancer. Hepatitis B virus (HBV) is another acute viral illness that can be transmitted through sexual activity. Most persons who acquire it recover and have no complications, but sometimes it becomes a chronic health problem (objectives 4, 5, and hepatitis B objective that appears in Immunizations and Infectious Diseases).

STD complications refer to serious health problems that occur following an acute bacterial or viral STD. Among the most serious of these complications are:

- Pelvic inflammatory disease (PID) that can cause permanent damage to the female reproductive tract and lead to ectopic pregnancy, infertility, or chronic pelvic pain (objectives 6, 7);
- Those in a pregnant woman that either infect the fetus or newborn directly or lead to a preterm birth (objectives 8, 9, and low birthweight/preterm birth objectives that appear in Maternal, Infant, and Child Health);
- Cancers such as cervical cancer (due to some strains of HPV) and liver cancer that can result after chronic infection with HBV (cervical cancer objectives in the Cancer chapter); and
- HIV infection acquired sexually that is facilitated by the presence of an inflammatory or ulcerative STD in one or both sex partners (objective 10).

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Overview

STDs refer to the more than 25 infectious organisms that are primarily transmitted through sexual activity. STDs are one of many interrelated factors that affect the broad continuum of reproductive health, agreed upon in 1994 by 180 nations at the International Conference on Population and Development (ICPD). STD prevention as an essential primary care strategy is integral to improving reproductive health. The ICPD Programme of Action challenged all nations to strengthen their STD programs.¹

The proposed set of objectives for the year 2010 reflects the extensive problem analysis and recommendations published in 1997 by the National Academy of Sciences' Institute of Medicine (IOM) in a report entitled *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*. Despite the burden, costs, and preventable nature of STDs and their complications, STDs remain an underrecognized health problem by the American public, policymakers, and public health and health care professionals. "STDs are hidden epidemics of tremendous health and economic consequence in the United States. They are hidden from public view because many Americans are reluctant to address sexual health issues in an open way and because of the biological and social factors associated with these diseases...STDs represent a growing threat to the nation's health and national action is urgently needed."² The principal conclusion of the IOM is that the United States needs to establish a much more effective national system for STD prevention.³

The generally recognized symptomatic STDs that may cause only mild initial illnesses are only part of a very large public health problem. These organisms also cause many other harmful, often irreversible, and costly clinical complications such as reproductive health problems, fetal and perinatal health problems, and cancer. In addition, studies of the HIV pandemic from all over the world link other STDs to a causal chain of events in the sexual transmission of HIV infection.⁴

STDs are common, costly, and preventable. Worldwide, an estimated 333 million curable STDs occur annually.⁵ In 1995 and 1996, STDs were the most common reportable diseases in the United States.⁶ They accounted for 87 percent of all cases among the top 10 most frequently reported to the Centers for Disease Control and Prevention (CDC) from State health departments. Of the top 10 infections, 5 were STDs (chlamydia, gonorrhea, AIDS, syphilis [primary and secondary], and hepatitis B). Each year an estimated 15 million Americans are infected with a STD, including 3 million teenagers.^{6a} Conservatively, the direct and indirect costs of the principal STDs and their complications, including sexually transmitted HIV infection, are an estimated \$17 billion annually.⁸

Despite recent progress toward controlling some STDs, the United States has not gone far enough or fast enough in its national attempt to contain acute STDs and STD-related complications when compared to other industrialized nations.⁹ U.S. STD rates exceed those in all other countries of the industrialized world (including the countries of western and northern Europe, Canada, Japan, and Australia). For example, in 1970 the gonorrhea rate in Sweden was 481 per 100,000 vs. 297 in the U.S. In 1996, the reported incidence of gonorrhea in Sweden was about 2.4 per 100,000 population vs. approximately 50 per 100,000 in the U.S. The 1996 gonorrhea rate in Canada was 18.6 per 100,000. The 1996 infectious syphilis (primary and secondary, plus early latent) rate in Canada was 0.83 per 100,000 vs. 16.4 in the United States. Despite high rates in the United States, a country with the world's largest annual health budget, these international statistics are encouraging. Through a sustained, collaborative, multifaceted approach, other countries have been able to dramatically reduce the burden of STDs among their citizens, an accomplishment that the United States should also strive to achieve.

1 ***Contributing Factors***
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3 STDs are behavior-linked diseases that result from unprotected sex.¹⁰ Transmission of STDs is
4 sustained by the complex interaction between biological and social factors.
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6 ***Biological Factors***
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8 Several biological factors contribute to the rapid spread of STDs.
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10 ***Asymptomatic Nature of STDs***
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12 The majority of STDs either do not produce any symptoms or signs or produce only mild symptoms.
13 Asymptomatic or mild infection results in a low index of suspicion among infected persons who should,
14 but often do not, seek medical care. For example, as many as 85 percent percent of women and up to 50
15 percent of men with chlamydia have no symptoms.¹¹⁻¹⁴ HIV infection is another example of a well- known
16 problem that may be asymptomatic and transmitted to others for years before symptoms occur. Most
17 people are not aware of how frequently STDs are asymptomatic. Many falsely believe that they can tell if
18 a potential sex partner is infected. Likewise, many infected persons fail to recognize their infections and
19 fail to take precautions that would prevent transmission to their sex partners.
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21 ***Lag Time Between Infections and Complications***
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23 There is often a long interval (sometimes years) between acquiring a sexually transmitted infection and the
24 recognition of a clinically significant health problem. Examples are cervical cancer caused by human
25 papillomavirus,¹⁵ liver cancer caused by hepatitis B virus infection,¹⁶ and infertility and ectopic pregnancy
26 resulting from unrecognized or undiagnosed chlamydia or gonorrhea.¹⁷ The original infection is often
27 asymptomatic, and as a result there is frequently no perceived connection between the original sexually
28 acquired infection and the resulting health problem. People are less motivated to take initial preventive
29 precautions because most people are unaware of this connection.
30

31 ***Gender and Age***
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33 Gender and age are associated with increased risk for STDs. Compared to men, women are at higher risk
34 of most STDs. For some STDs, young women are more susceptible than older women. Due to cervical
35 ectopy that is extremely common in adolescent females, the cervix of adolescent females is covered with
36 cells that are especially susceptible to STDs such as chlamydia.¹⁸ There are fewer of these cells on the
37 cervix of older women. In addition, traumatic sexual practices predispose one to STDs. This has been
38 well-documented for receptive rectal intercourse, and in the case of many young women who report their
39 first intercourse as not voluntary, sexual trauma to the external and internal genitalia may also predispose
40 one to acquiring an STD.
41

1 *Social and Behavioral Factors*
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3 Some social and behavioral factors directly affect STD spread especially in certain vulnerable
4 subpopulations; other social factors create serious obstacles to STD prevention by adversely influencing
5 social norms regarding sex and sexuality.
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7 *Poverty and Marginalization*
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9 A careful analysis of STD statistics and trends reveals that STDs disproportionately affect disenfranchised
10 persons and persons who are in social networks where both high risk sexual behavior is common and either
11 access to care or health-seeking behavior is compromised. Some notable disproportionately affected
12 groups include sex workers, adolescents and adults in detention, and migrant workers. These are groups
13 that are frequently hard to reach even with basic medical care and, without publicly supported STD
14 services, many people in these categories would have no access to any STD care.
15

16 Substance use, sex work, and STDs are closely connected, and substance use and sex work are frequently a
17 cause for arrest and detention. Demonstrations are now beginning to show that comprehensive screening
18 of incarcerated populations can be done successfully and safely within the criminal justice system.¹⁹⁻²¹
19 Several interconnected themes are relevant to any discussion of poverty and marginalization issues:
20

21 *Access to Health Care*
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23 Access to high quality health care is essential for early detection, treatment, and behavior change
24 counseling for STDs. Often, groups with the highest rates of STDs are also the same groups in which
25 access to health services is poor or limited. This may relate to a) the unavailability of publicly supported
26 STD clinics (present in only 50 percent of U.S. public health jurisdictions),²² b) having no health care
27 coverage at all, c) having coverage that imposes a copayment or deductible in order to get care, or d)
28 coverage that does not include the basic preventive health services that having an STD would require. It is
29 essential that health care programs designed to assist poor people with health care services make high
30 quality STD services available to their clientele.
31

32 *Substance Use*
33

34 Many studies document the association of substance use, especially alcohol and drug use, with STDs.²³ At
35 the population level, the introduction of new illicit substances into communities can often dramatically
36 alter sexual behavior in high risk sexual networks leading to epidemic spread of STDs.²⁴ The national
37 U.S. syphilis epidemic of the late 1980s was fueled by the epidemic of increased crack cocaine use,
38 especially in minority communities.²⁵ In this instance, crack cocaine led to increases in sex being
39 exchanged for drugs, increases in the number of anonymous sex partners, a decrease in motivation to use
40 barrier protection, and decreases in health care seeking behavior—all behavioral factors that can increase
41 STD transmission in a community. Substance use remains a significant contributing factor to epidemic
42 syphilis in some American communities in 1998.²⁶ Other substances, including alcohol, may affect an
43 individual's cognitive and negotiating skills before and during sex, lowering the likelihood that preventive
44 action will be taken to protect against STDs and pregnancy.
45

1 Sexual Violence

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3 Recent analyses of sexual activity among adolescent females not only illustrate the frequency of these
4 behaviors, but also bring to light that not all sexually experienced young females enter a sexual relationship
5 as a willing partner.²⁷ In fact, sexual coercion is a significant problem for America's young women. In
6 1995, 16.1 percent of females whose first intercourse occurred when they were 15 years old or younger
7 indicated their first intercourse was not voluntary.²⁸ This is an aspect of sexual behavior affecting
8 adolescents that demands increased national and local attention, both for social justice and for health
9 reasons. Sexual violence against women contributes both directly and indirectly to transmission of STDs.
10 Directly, women experiencing sexual violence are less able to protect themselves from STDs or pregnancy.
11 Indirectly, research demonstrates, women with a history of involuntary intercourse are also more likely to
12 have voluntary intercourse at earlier ages, a known risk factor for STDs.²⁹

13
14 Sexuality and Secrecy

15
16 Perhaps the greatest social factor contributing to the spread of STDs in the U.S., and the factor that most
17 significantly separates the U.S. from industrialized countries with low rates of STDs, is the stigma that
18 continues to be associated with STDs in this country and our general discomfort with discussing intimate
19 aspects of life, especially those related to sex.³⁰ Sex and sexuality pervade many aspects of American
20 culture and Americans are fascinated with sexual matters. Paradoxically, while sexuality is considered a
21 normal aspect of human functioning, Americans are nevertheless secretive and private about their sexual
22 behavior. Talking openly and comfortably about sex and sexuality is difficult even in our most intimate
23 relationships. A recent survey showed that among married couples, about one fourth of women and one
24 fifth of men had no knowledge of their partner's past sexual history.³¹ "The secrecy surrounding
25 sexuality and STDs adversely impacts on STD prevention in the United States by impeding sexuality and
26 STD education programs for adolescents, hindering communication between parents and their children and
27 between sex partners, promoting unbalanced sexual messages in mass media, compromising education and
28 counseling activities of health care professionals, hindering community activism regarding STDs, and
29 impeding research on sexual behaviors."³²

30
31 Changing sexual behavior and sexual norms will be an important part of any long term strategy to develop
32 a more effective national system of STD prevention in the U.S. It will be necessary for a new sexual
33 openness to become the norm in America—an openness that will both allow and expect parents to talk
34 frankly and comfortably with their children (and teachers/counselors with their students) about responsible
35 behavior and avoiding risks, sex partners to talk openly about safe behaviors, and health care providers to
36 talk comfortably and knowledgeably with patients about sexuality and sexual risk, counsel them about risk
37 avoidance, and regularly screen them for STDs when indicated.³³

38
39 It is noteworthy that Americans' interest in sexual themes has not gone unnoticed by the entertainment
40 industry. While Americans are bombarded by sexual messages and images there is still very little
41 informed, high quality STD prevention advice or discussion of contraception, sexuality, and the risks of
42 early, unprotected sexual behavior, especially on television. It has been observed that popular television
43 programs depict as many as 25 instances of sexual behaviors for every 1 instance of protective behavior or
44 discussion of STDs or pregnancy prevention.³⁴

1 *Transmission Dynamics*

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3 The rate of STD infection in a population is determined by the interaction of three principal factors.^{35,36}

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- 5 • The rate at which uninfected individuals have sex with infected persons (rate of sex partner exchange
6 or exposure);
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 - 8 • The probability that a susceptible exposed person will actually acquire the infection (transmissibility);
9 and
 - 10
 - 11 • The time period during which an infected person remains infectious and able to spread disease to
12 others (duration).
 - 13

14 *Behavioral and Biomedical Interventions That Interrupt Transmission*

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16 “Use of available information and interventions could have a rapid and dramatic impact on the
17 incidence and prevalence of STDs in the United States. Many effective and efficient behavioral
18 and biomedical interventions are available.”³⁷

19
20 Effective STD prevention requires effective population and individual interventions that can alter the
21 natural course of these factors.

22
23 *Health Care and Sexual Behavior*

24
25 Behavioral interventions can be brought to bear on exposure, transmission, and on duration as factors with
26 regard to health care behaviors. Existing and newly developed behavioral interventions help persons to
27 delay initiation of intercourse, reduce the number of sex partners, and increase the use of effective physical
28 barriers such as condoms or newly emerging chemical barriers such as microbicides. Further attention
29 must be given to helping parents become better STD educators. But because only a small percentage of
30 adolescents receive any STD prevention information from parents and schools are the main source of STD
31 information for most teenagers, school-based interventions can play a significant role in educating and
32 informing youth about STD exposure and transmission issues and motivating them to modify their
33 behaviors.³⁸ Both school-based health education and school-based health services programs are potentially
34 beneficial to youth³⁹ (reproductive health education, human sexuality education, and sexual activity among
35 adolescents objectives appear in Family Planning).

36
37 Mass media campaigns have been effective in bringing about significant changes in awareness, attitude,
38 knowledge, and behaviors for other health problems such as smoking.⁴⁰ Considering the widespread
39 misinformation and lack of awareness about STDs, a national media information campaign focused on
40 STDs could have a sizable impact on exposure and transmission-related behaviors.

41
42 *Biomedical Interventions*

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44 Biomedical interventions can be used to affect aspects of transmission and duration factors.

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46 Vaccines minimize the probability of infection and/or disease after exposure (transmission). While
47 vaccines for some STDs are in various stages of development, the only effective and widely available
48 vaccine for an STD is that for hepatitis B.^{41,42} Unfortunately, hepatitis B vaccine coverage remains
49 minimal, especially in high risk groups, mainly because of lack of awareness among health care providers,

1 limited opportunity to reach high-risk youth in traditional health care settings, and limited financial support
2 for wide-scale implementation of this effective intervention, especially for high-risk adults (hepatitis B
3 immunization objective for adolescents appears in Immunization and Infectious Diseases).

4
5 Correct and consistent condom use interferes with STD transmission.⁴³ While condom use has been on the
6 rise in the United States over the past few decades,⁴⁴ women who use the most effective forms of
7 contraception (sterilization and hormonal contraception) are less likely than other women to use condoms
8 for STD prevention.⁴⁵⁻⁴⁷ “Because no single method of preventing STDs or pregnancy confers the
9 maximum level of protection against both conditions, use of dual protection—that is, a condom and
10 another effective contraceptive for pregnancy—is especially important. It is not clear, however, how well
11 the public understands the need for dual protection against STDs and pregnancy.”⁴⁸

12
13 Dual methods could help avoid both unwanted pregnancy and STDs.⁴⁹ However, most sexually active
14 young people today do not employ this strategy⁵⁰ (objective on contraceptives that prevent pregnancy and
15 disease appears in Family Planning).

16
17 Identifying and treating partners of persons with curable STDs has always been an integral part of
18 organized control programs.⁵¹ Theoretically, this can break the chain of transmission in a sexual network.
19 Early antimicrobial prophylaxis of the exposed partner interferes with transmission and thwarts infection.
20 Partner treatment benefits the index patient by reducing the risk of reinfection by an untreated partner, and
21 the partner benefits by avoiding acute infection and potential complications. Future sex partners are
22 protected by treating partners, thus, as a strategy, this also benefits the community. Active partner
23 notification and partner treatment have been the traditional responsibility of personnel in public STD
24 clinics. New approaches for getting more partners treated by involving index patients in the process of
25 referring their partners for evaluation and treatment or using different approaches to sexual network
26 analysis are currently being assessed both in traditional and non-traditional STD treatment settings.^{52,53}
27 Because the majority of STD care in the U.S. is delivered in the private sector, it is especially important
28 that private health care providers, managed care organizations, and health departments work together in the
29 future to overcome barriers to rapid and effective treatment of nonplan sex partners of plan members
30 (objectives 13, 14).

31
32 Screening and treatment of STDs affect both transmission and duration factors. For curable STDs,
33 screening and treatment can be cost-effective, or even cost saving, in altering the period during which
34 infected persons can infect others. Screening for STDs clearly meets the criteria for an effective preventive
35 intervention.⁵⁴ For STDs that are frequently asymptomatic, screening and treatment also benefit those
36 likely to suffer severe complications (especially women) if infections are not detected and treated early.⁵⁵
37 For example, in a randomized, controlled trial conducted in a large managed care organization, chlamydia
38 screening has also been demonstrated to reduce the incidence of subsequent PID in a screened group by 56
39 percent.⁵⁶ Selective screening for chlamydia in the Pacific Northwest reduced the burden of disease in the
40 population by 60 percent in 5 years.⁵⁷

41
42 When combined with a new generation of sensitive and rapid diagnostic tests, some of which can be
43 performed on a urine specimen, STD screening of specific high-risk populations in nontraditional settings
44 appears to be a promising control strategy that expands access to underserved groups.^{57a} The success of
45 screening programs will depend on the availability of funds, the willingness of communities and
46 institutions to support them, and the availability of well-trained health care providers and well-equipped
47 and accessible laboratories (objectives 17, 18, 19 and objective that appears in the HIV chapter regarding
48 screening for STDs in HIV counseling and testing sites).

1 **Disparities in Health**

2
3 All racial, cultural, economic, and religious groups are affected by STDs. People in all communities and
4 sexual networks are at risk for STDs. Nevertheless, some people are disproportionately affected by STDs
5 and their complications.

6
7 **Women**

8
9 Women suffer more serious STD complications and they occur more frequently in women than in men.
10 Among the most serious STD complications that occur among women are pelvic inflammatory disease,
11 ectopic pregnancy, infertility and chronic pelvic pain.⁵⁸ Women are biologically more susceptible to
12 infection when exposed to a sexually transmitted agent. Often, STDs are more easily transmitted from a
13 man to a woman than from a woman to a man.⁵⁹ This is further complicated by the fact that acute STDs
14 (and even some complications) are often very mild or completely asymptomatic in women. This
15 combination of increased susceptibility and “silent” infection frequently results in women being less
16 suspicious of an STD which results in delayed diagnosis and treatment. Complicating this further is the
17 fact that STDs are more difficult to diagnose in women due to the physiology and anatomy of the female
18 reproductive tract and the frequent need for a speculum examination and culture tests to diagnose STDs in
19 women (objectives 5, 6, 7, 10, 17, 18 and objectives concerning sexually active adolescents, cervical
20 cancer and forced intercourse that appear in Family Planning, Cancer, and Injury/Violence Prevention).

21
22 **Infants**

23
24 STDs in pregnant women can cause serious health problems or death in the fetus or newborn.⁶⁰ Sexually
25 transmitted organisms in the mother can be transmitted across the placenta to the fetus or newborn,
26 resulting in congenital infection, or reach the newborn during birth resulting in perinatal infections.
27 Regardless of the route of infection, these organisms can permanently damage the brain, spinal cord, eyes,
28 auditory nerves, or immune system. Even when the organisms do not reach the fetus or newborn directly,
29 they can also significantly compound the pregnancy by causing spontaneous abortion, stillbirth, premature
30 rupture of the membranes, and preterm delivery.⁶¹ For example, women with bacterial vaginosis are 40
31 percent more likely to deliver a preterm, low birthweight infant than mothers without this condition^{62,63}
32 (objectives 8, 9, 18, and objective concerning low birthweight and prematurity that appears in Maternal,
33 Infant, and Child Health).

34
35 **Adolescents**

36
37 For a variety of behavioral, social, and biological reasons, STDs also disproportionately affect
38 adolescents.⁶⁴ In 1996, teenagers 15 to 19 years of age had the highest reported rates of both chlamydia
39 and gonorrhea.⁶⁵ The herpes infection rate among white youth 12 to 19 was recently shown to have
40 increased nearly fivefold from a decade before.⁶⁶ Indeed, because not all teenagers are sexually active the
41 actual rate of STDs among teens is even higher than the observed rates suggest.⁶⁷ There are several
42 contributing factors:

- 43
44 • Many teenagers are, in fact, sexually active and at risk for STDs. In 1995, 50.4 percent of 15- to 19-
45 year-old females interviewed for the National Survey of Family Growth indicated that they had sexual
46 intercourse. In the same year, 51.7 percent of adolescent males in high school reported having sexual
47 intercourse by age 16.

- Teenagers are more likely than older individual to have serial sex partners who are active in sexual networks already highly infected with untreated STDs.
- Sexually active teenagers are often reluctant to or face serious obstacles when trying to obtain STD services. In addition, health care providers are often uncomfortable discussing sexuality and risk reduction with young people.

(Objectives 1, 10, 12, 19 and objectives concerning sexually active adolescents and sexuality education [see Family Planning] and hepatitis B immunizations for adolescents [see Immunizations and Infectious Diseases]).

Racial and Ethnic Groups

Surveillance data show high rates of STDs for some minority racial or ethnic groups (mainly African American and Hispanic populations) compared with rates for whites. Race and ethnicity in the United States are risk markers that correlate with other more fundamental determinants of health status such as poverty, access to quality health care, health care-seeking behavior, illicit drug use, and living in communities with a high prevalence of STDs. National surveillance data may overrepresent STDs among racial and ethnic groups who are more likely to receive STD services from public sector STD clinics where timely and complete morbidity reporting is generally the rule. However, serosurveys using random sampling techniques document higher rates of STDs among marginalized populations, particularly African Americans, compared with whites.⁶⁸ Recent surveillance data show that:

- Although chlamydia is a widely distributed STD among all racial and ethnic groups, trends toward positivity in women screened in Health and Human Services Region X (Alaska, Idaho, Oregon, and Washington) show consistently higher rates among minorities.
- In 1996, African Americans accounted for about 78 percent of total reported cases of gonorrhea. The overall gonorrhea rates in 1996 were 825.5 cases per 100,000 for African Americans and 69.0 for Hispanics, compared with 25.9 for non-Hispanic whites.
- Gonorrhea rates are very high for African American adolescents and young adults. In 1996, African American females aged 15 to 19 years had a gonorrhea rate of 3,790.9 cases per 100,000 population. African American men in this age group had a gonorrhea rate of 2,357.2. These rates were on average about 24 times higher than those of 15- to 19-year-old white adolescents. Among 20- to 24-year-olds in 1996, the gonorrhea rate among African Americans was almost 30 times greater than that of whites (3,015.5 vs. 103.9, respectively).
- The most recent epidemic of syphilis was largely an epidemic in heterosexual, minority populations. Since 1990, rates of primary and secondary (P&S) syphilis have declined among all racial and ethnic groups except American Indian/Alaska Native. However, rates for African Americans and Hispanics continue to be higher than for non-Hispanic whites. In 1996, African Americans accounted for about 84 percent of all reported cases of P&S syphilis. Although the rate for African Americans declined from 44.9 cases per 100,000 population in 1995 to 30.2 in 1996, the latter rate was nearly 50-fold greater than the non-Hispanic white rate of 0.6 per 100,000.
- In 1996, the rate of congenital syphilis in African Americans was 127.8 per 100,000 live births and 36.4 in Hispanics compared with 3.2 in whites.

(Objectives 1, 2, 3, 4, 6, 8, and objectives concerning low birthweight/prematurity are in Maternal, Infant, and Child Health; objectives on cervical cancer are in Cancer.)

Progress Toward Year 2000 Objectives

Significant progress has been made toward reducing the burden of the common bacterial STDs in the United States, such as gonorrhea, syphilis, and congenital syphilis—diseases for which national control programs have existed for the longest period. Encouraging data are emerging from a new and expanding chlamydia prevention program suggesting that chlamydia screening is reducing disease burden and preventing complications. Nevertheless, STD complications continue to take a heavy toll on women's health and health care costs.

Viral STDs continue to present challenges for prevention and control. Within the set of America's interconnected HIV epidemics, women now account for 20 percent of all AIDS cases in the United States, with young, minority women (who also incur a disproportionate share of other STDs) incurring a disproportionate share of heterosexually transmitted HIV infection. Results of a recent nationally representative study show that genital herpes infection is extremely common in the United States. Nationwide, 45 million people ages 12 and older, or one out of five of the total adolescent and adult population, is infected with HSV-2.

Recent STD trends include:

Chlamydia

- In 1997, chlamydia was the most frequently reported communicable disease in the United States, with 527,268 cases reported. An estimated 4 million new chlamydial infections occur in the United States every year, 2.6 million of which are in women. Chlamydia is extremely common in sexually active adolescents and young adults. The highest annual rates are reported among 15- to 19-year-old females.
- Reported chlamydia rates have increased dramatically since 1984. The increase in the number of reported cases reflects the growing availability of inexpensive, accurate diagnostic tests and the gradual acceptance of chlamydia screening and reporting, particularly for asymptomatic women. Furthermore, the number of States that require chlamydia reporting has increased from 5 to 49 between 1984 and 1996.
- Reported rates of chlamydia for women greatly exceed those for men. This is primarily attributable to detection of asymptomatic infection in women through screening. Low rates in men suggest that many of the sex partners of women with chlamydia are not diagnosed or reported. The incremental impact of screening and treating men to reduce complications in women is unknown.
- Screening programs have been extremely effective in reducing chlamydia burden in groups that are screened regularly. For example, in Region X family planning clinics, chlamydia positivity was reduced by 65 percent within 7 years of introducing screening. Prospective studies indicate that chlamydia complications such as PID are reduced by as much as 56 percent within 1 year of introducing chlamydia screening.
- Funds for chlamydia screening are currently adequate to provide screening coverage for 40-50 percent of at-risk women in 20 States; fewer than 15 percent of at-risk women are covered in the remaining 30 States. As a result, there is still a large disparity in chlamydia burden across States and in selected

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1 subpopulations. Given a 5 percent Healthy People 2000 positivity target for sexually active women
2 less than 25 years old:

- 3
- 4 ▪ In 1996, the percent positivity by State among 15- to 24-year-old females tested in selected family
5 planning clinics ranged from 3.1 percent (North and South Dakota) to 10.9 percent (North
6 Carolina).
- 7
- 8 ▪ In 1996, the percent positivity by State among 16- to 24-year-old females entering the U.S. Job
9 Corps ranged from 1.7 percent (Idaho) to 17.9 percent (Louisiana).
- 10
- 11 ▪ In 1996, the percent positivity among 15- to 24-year-old females and males screened in STD
12 clinics was 11.2 percent and 14.4 percent, respectively.
- 13

14 **Gonorrhea**

- 15
- 16 • Since 1990 the U.S. gonorrhea rate has decreased by 56 percent (from 278.0 per 100,000 in 1990 to
17 122.7 in 1997). The 1997 rate is the lowest rate ever reported in the U.S.
- 18
- 19 ▪ Among women, 15- to 19-year-olds had the highest rate, while among men, 20- to 24-year-olds
20 had the highest rate. Between 1990 and 1996, the gonorrhea rate among adolescents decreased by
21 49 percent (from 1114.4 per 100,000 in 1990 to 570.8 in 1996).
- 22
- 23 ▪ Among men who have sex with men, gonorrhea trends may reflect changes in sexual behaviors
24 that also influence risk for HIV infection. Data from the Gonococcal Isolate Surveillance Project
25 (GISP) indicate that the number and proportion of men who have sex with men diagnosed with
26 gonorrhea has increased in the STD clinics of several large cities located in the western United
27 States.
- 28
- 29 ▪ Since 1990, gonorrhea rates have decreased for all racial and ethnic groups, and the large African
30 American-white ratio has begun to decline. Comparing 1997 rates with 1990 rates, decreases by
31 race/ethnicity include: 58 percent decrease among African Americans, 51 percent among whites,
32 40 percent among Hispanics, 36 percent among American Indians/Alaska Natives, and 23 percent
33 among Asians/Pacific Islanders. Over this period the African American to white ratio in reported
34 gonorrhea rates has declined from 36:1 to 31:1. In 1997 gonorrhea rates for all race/ethnic groups
35 was below the Healthy People 2000 national target of 100 per 100,000 population except African
36 Americans. Among African Americans, the reported rate was 812.
- 37
- 38 ▪ Large race/ethnicity disparities still exist, especially among young people. In 1997, more than 3
39 percent (greater than 3000 per 100,000 population) of young African Americans (15 to 24 year
40 olds) had gonorrhea. This compares to 130 per 100,000 for whites 15 to 19 years old and 104 for
41 whites 20 to 24 years old.
- 42
- 43 ▪ In 1997, the Northeast and West regions had rates below the Healthy People 2000 target of 100
44 per 100,000. The South continued to have a higher rate than other regions (188.7 per 100,000 vs.
45 50.7 in the West).
- 46
- 47 ▪ In 1997, 32 States or outlying areas reported gonorrhea rates below the Healthy People 2000 target
48 of 100 cases per 100,000 persons.
- 49

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- 1 • Antimicrobial resistance remains an important consideration in the treatment of gonorrhea. Overall,
2 29.0 percent of isolates collected in 1996 by GISP were resistant to penicillin, tetracycline, or both.
3 Between 1991 and 1996, the percentage of GISP isolates that were penicillinase producing *Neisseria*
4 *gonorrhoeae* (PPNG) declined from 13.1 percent to 5.8 percent. In contrast, isolates with
5 chromosomally mediated resistance to penicillin increased from 6.4 percent in 1991 to 9.1 percent in
6 1996. The prevalence of chromosomally mediated tetracycline resistance, 14.3 percent in 1996, has
7 been relatively stable since 1992.

8 9 PID/Infertility

- 10
11 • Approximately 1 million women experience an acute episode of PID annually in the U.S. About 25
12 percent of women with acute PID develop infertility or ectopic pregnancy.
13
14 ▪ In 1995, the percentage of women aged 15-44 who had ever required treatment for PID was 10.6
15 percent in non-Hispanic African Americans, 7.9 percent in Hispanics, and 7.2 percent in non-
16 Hispanic whites.
17
18 ▪ Estimated 1995 PID hospitalizations (162 per 100,000 females 15 to 44 years) and initial visits to
19 physicians for PID (245,000) are 48 percent lower and 43 percent lower, respectively, in 1995
20 compared with 1988 (Healthy People 2000 baseline year).
21

22 Syphilis and Congenital Syphilis

- 23
24 • The 1997 rate of primary and secondary (P&S) syphilis of 3.2 per 100,000 was the lowest rate ever
25 reported in the U.S. (based on 8539 case reports), and passed the Healthy People 2000 target of 4.0 per
26 100,000. The U.S. P&S syphilis rate in 1997 was 84 percent lower than 1990 rate.
27
28 • In the United States, syphilis and congenital syphilis are highly focal both geographically and
29 demographically. In 1997, 75 percent of U.S. counties reported no cases of syphilis. However, 114
30 counties (3.7 percent of all counties) accounted for 75 percent of reported P&S syphilis cases among
31 adults.
32
33 ▪ Since 1990, P&S syphilis rates have decreased for all racial and ethnic groups. Comparing 1997
34 rates with 1990 rates, decreases by race/ethnicity include: 90 percent for Hispanics, 85 percent for
35 African Americans, 81 percent for whites, 80 percent for Asians/Pacific Islanders, and 63 percent
36 for American Indians/Alaskan Natives.
37
38 ▪ In period 1990 to 1997, African American-white and Hispanic-white ratios of P&S syphilis rates
39 declined. In 1990 the African American-white ratio for P&S syphilis was 53:1 vs.44:1 in 1997. In
40 1990 the Hispanic-white ratio was 6:1 vs. 3:1 in 1997.
41
42 ▪ In 1997, the rates of P&S syphilis continued to decline for all regions of the United States.
43 However, the rate of 6.6 cases per 100,000 persons in the South remained above the Healthy
44 People 2000 target. The P&S syphilis rates of the other three regions were below the Healthy
45 People 2000 target.
46
47 • In 1997, 973 congenital syphilis cases were reported (24.6 per 100,000 live births). This represents a
48 75 percent decrease in reported cases compared with 1990.
49

- 1 ▪ African-American and Hispanic women accounted for 86 percent of the congenital syphilis cases
2 in 1997 (while accounting for only 23 percent of the female population).
3

4 HIV/AIDS

- 5
- 6 • 60,161 AIDS cases were reported among adults/adolescents in 1997 (vs. 68,137 in 1996). Nearly 22
7 percent of AIDS cases in 1997 occurred among women compared with 5 percent in 1982.
8
 - 9 • Among male adult/adolescent AIDS cases for whom exposure category was known, 71 percent were
10 associated with sexual transmission in 1997.
11
 - 12 • In 1997, among female adult/adolescent AIDS cases for whom exposure category was known, 53
13 percent of reported cases were heterosexually transmitted. 1997 was the fifth consecutive year in
14 which sex with men of other/unspecified risk exceeded sex with male IDUs as the principal
15 subcategory for heterosexual exposure among women.
16
 - 17 • Young heterosexual women, especially minority women, are increasingly acquiring HIV infection and
18 developing AIDS. Racial gaps are actually widening. The African American-white ratios in AIDS
19 case rates among adult/adolescent women increased from 13.3 to 19.6 between 1990 and 1997,
20 respectively. In 1997, 40 percent of reported AIDS cases in 13- to 24-year-olds occurred among young
21 women, and greater than four of every five AIDS cases reported in women occurred in minority
22 women; most of whom were African American or Hispanic.
23

24 Genital Herpes

- 25
- 26 • Since the late 1970s, the number of Americans with genital herpes infection (i.e., prevalence) has
27 increased 30 percent. Approximately one in five adult Americans has serologic evidence of infection
28 with genital herpes (HSV-2).
29
 - 30 • HSV-2 infection is more common in women (approximately one out of four women) than in men
31 (almost one out of five). HSV-2 infection is also more common in African Americans (45.9 percent)
32 than in whites (17.6 percent).
33
 - 34 • Prevalence is increasing most dramatically among young white teens; HSV-2 prevalence among 12- to
35 19-year-old whites is now five times higher than it was 20 years ago. Young adults aged 20 to 29 are
36 now twice as likely to have HSV-2.
37

1 Human Papillomavirus

- 2
- 3 • Human papillomavirus (HPV) infection is extremely common. An estimated 50 percent of sexually
 - 4 active adults have been infected with HPV infection. The highest rates of genital HPV infection are
 - 5 found in older adolescents and young adults.^{68a}
 - 6
 - 7 • Infection with HPV-6 and HPV-11 subtypes causes genital warts, low grade CIN, and recurrent
 - 8 respiratory papillomatosis. Persistent cervical infection with certain very common subtypes of HPV
 - 9 (HPV-16, 18, 31, and 45) is the single most important etiologic risk factor for cervical cancer. These
 - 10 subtypes account for an estimated 80 percent of cervical cancers. Most cervical HPV infection is
 - 11 usually transient, but cancer-related subtypes are more likely to persist.
 - 12
 - 13

14 **Draft 2010 Objectives**

15 *STD Morbidity*

16 *Curable Bacterial STDs*

- 17
- 18 1. (Former 19.2) Reduce the prevalence of *Chlamydia trachomatis* infections among young persons
 - 19 (15 to 24 years old) to no more than 3.0 percent. Baseline:
 - 20
 - 21
 - 22

Select Populations	1997		
	Female (family planning)	Female (STD clinic)	Male (STD clinic)
African American, non-Hispanic	11.1	15.3	18.1
American Indian/Alaska Native	6.3	13.1	12.6
Asian/Pacific Islander	4.7	12.0	16.6
Hispanic	5.2	14.0	18.5
White, non-Hispanic	3.1	9.2	11.5
Other	4.4	9.6	10.7
Total	4.7	12.3	15.7

23 **Target Setting Method:** Better than the best.

24 **Data Source:** STD Surveillance System, CDC.

25

26

Healthy People 2010 Objectives: Draft for Public Comment

- 1 **2. (Former 19.1) Reduce the incidence of gonorrhea to no more than 19 cases per 100,000 people.**
2 (Baseline: in 1997, the gonorrhea rate in the general population of the United States was 122.5 per
3 100,000)
4

Select Populations	Total	1997	
		Male	Female
African American aged 15-24	807.9	911.6	714.3
American Indian/Alaska Native aged 15-24	99.7	67.0	131.4
Asian/Pacific Islander aged 15-24	19.8	18.2	21.3
Hispanic aged 15-24	69.4	66.8	72.2
White, non-Hispanic aged 15-24	26.0	19.5	32.3
Total aged 15-24	122.5	125.4	119.3

5
6 **Target Setting Method:** Better than the best.
7

8 **Data Source:** STD Surveillance System, CDC.
9

- 10 **3. (Former 19.3) Eliminate sustained domestic transmission of primary and secondary syphilis to**
11 **fewer than 0.25 cases per 100,000.** (Baseline: in 1997, the P&S rate in the general population was
12 3.2 per 100,000)
13

Select Populations	Total	1997	
		Male	Female
African American, non-Hispanic	22.0	25.0	19.3
American Indian/Alaska Native	2.0	2.3	1.8
Asian/Pacific Islander	0.3	0.3	0.4
Hispanic	1.6	2.1	1.0
White, non-Hispanic	0.5	0.6	0.5
Total	3.2	3.6	2.9

14
15 **Target Setting Method:** Better than the best.
16

17 **Data Source:** STD Surveillance System, CDC.
18

19 Elimination of sustained domestic transmission means no ongoing transmission of the disease within a
20 community or jurisdiction, and less than four generations of transmission if syphilis were to be re-
21 introduced in a community or jurisdiction. In its early stages syphilis causes genital ulcers and other
22 infectious lesions. Left untreated, syphilis enters a latent phase that damages the internal organs over a
23 prolonged time period. Both inflammatory and ulcerative STDs facilitate the transmission of HIV
24 infection; conversely, treating these conditions lowers individual and community risk of sexually
25 transmitted HIV infection.
26

1 *Viral STDs*
2

- 3 **4. (Former 19.5) Reduce the number of new cases of herpes simplex virus type 2 (HSV-2) infection**
4 **so that the prevalence in persons 20 to 29 years of age is no greater than 15 percent.** (Baseline:
5 17.2 percent during the period 1988 to 1994)
6

Select Populations	1988-94
African American	33.6%
Asian/Pacific Islander	Not available
Hispanic	Not available
Mexican American	14.8%
White, non-Hispanic	14.7%
Total	17.2%

7
8 **Target Setting Method:** Comparable to the best subgroup.
9

10 **Data Source:** National Health and Nutrition Examination Survey (NHANES) (1988-94), CDC
11 NCHS.
12

- 13 **5. (Developmental) Reduce the number of new cases of human papillomavirus infection (HPV) to**
14 **minimize the prevalence of subtypes 16, 18, and other subtypes associated with cervical cancer**
15 **and in persons 15 to 44 years old.**
16

17 **Potential Data Source:** National Health and Nutrition Examination Survey (NHANES) (1988-94),
18 CDC, NCHS.
19

20 Initial infections with viral STDs may be asymptomatic or cause only mild symptoms. There are
21 treatments but no cures for these infections. Herpes causes periodic outbreaks of painful genital ulcers.
22 Ulcerative STDs facilitate the transmission of HIV infection. Some strains of HPV cause genital warts and
23 others are important risk factors for cervical dysplasia and invasive cervical cancer. Hepatitis B virus
24 (HBV) is another acute viral illness that can be transmitted through sexual activity. Most persons who
25 acquire it recover and have no complications, but sometimes it becomes a chronic, costly health problem.
26

1 *STD Complications—Infertility-Related Health Events*

- 2
3 **6. (Former 19.6) Reduce the percentage of women 15 to 44 years old who have ever required**
4 **treatment for pelvic inflammatory disease (PID) to no more than 5 percent.** (Baseline: 7.6
5 percent in 1995)
6

Select Populations	1995
African American, non-Hispanic	10.6%
American Indian/Alaska Native	Not available
Asian/Pacific Islander	Not available
Hispanic	7.9%
White, non-Hispanic	7.2%
Total	7.6%

7
8 **Target Setting Method:** Better than the best.

9
10 **Data Source:** National Survey of Family Growth (NSFG), CDC, NCHS.

- 11
12 **7. Reduce to less than 500,000 the number of childless women with fertility problems* who had a**
13 **previous sexually transmitted disease history or required treatment for pelvic inflammatory**
14 **disease.** (Baseline: 800,000 in 1995)
15

16 * As defined by the number of women meeting the standard medical definition of infertility (have not
17 used contraception and have not become pregnant for 12 months or more) or impaired fecundity
18 (women reporting no sterilizing operation and classified as finding it difficult or impossible to get
19 pregnant or carry a baby to term).
20

21 **Target Setting Method:** 38 percent improvement.

22
23 **Data Source:** National Survey of Family Growth (NSFG), CDC, NCHS.
24

25 Women suffer more serious STD complications and they occur more frequently in women than in men.
26 Among the most serious STD complications that occur among women are PID and the ectopic
27 pregnancies, infertility, and chronic pelvic pain that result from it.⁶⁹ Women are biologically more
28 susceptible to infection when exposed to a sexually transmitted agent. Often, STDs are more easily
29 transmitted from a man to a woman than from a woman to a man.⁷⁰ This is further complicated by the fact
30 that acute STDs (and even some complications) are often very mild or completely asymptomatic in women.
31 This combination of increased susceptibility and “silent” infection frequently results in women being less
32 suspicious of an STD, which results in delayed diagnosis and treatment. Complicating this further is the
33 fact that STDs are more difficult to diagnose in women due to the complex anatomy of the female
34 reproductive tract and the frequent need for a speculum examination and culture tests to diagnose STDs in
35 women.
36

1 *STD Complications—Congenital/Perinatal STDs; Low Birthweight/Preterm Births*

2
3 **8. (Former 19.4) Reduce the incidence of congenital syphilis to no more than 1 per 100,000 live**
4 **births.** (Baseline: 26.9 per 100,000 live births in 1997)

5

Select Populations	1995*
African American	113.5
American Indian/Alaska Native	Not available
Asian/Pacific Islander	Not available
Hispanic	34.6
Other, non-Hispanic	24.0
White, non-Hispanic	3.3
Total	26.9

6
7 * Based on 1995 natality data.

8
9 **Target Setting Method:** Better than the best subgroup.

10
11 **Data Source:** STD Surveillance System, CDC.

12
13 **9. (Developmental) Reduce to __ percent the incidence of neonatal consequences of maternal**
14 **sexually transmitted diseases (STDs):**

15
16 **9a. Chlamydia pneumonia**

17
18 **9b. Gonococcal and chlamydial *ophthalmia neonatorum***

19
20 **9c. Laryngeal papillomatosis (from human papillomavirus infection [HPV])**

21
22 **9d. Neonatal herpes**

23
24 STDs in pregnant women can cause serious health problems or death in the fetus or newborn.⁷¹ Sexually
25 transmitted organisms in the mother can be transmitted across the placenta to the fetus or newborn,
26 resulting in congenital infection, or reach the newborn during birth resulting in perinatal infections.
27 Regardless of the route of infection, these organisms can permanently damage the brain, spinal cord, eyes,
28 auditory nerves, or immune system. Even when the organisms do not reach the fetus or newborn directly,
29 they can also significantly affect the “quality” of the pregnancy by causing spontaneous abortion, stillbirth,
30 premature rupture of the membranes and preterm delivery.⁷² For example, women with bacterial vaginosis
31 are 40 percent more likely to deliver a preterm, low birthweight infant vs. mothers without this
32 condition.^{73,74}

33
34 *STD Complications—STD Associated Reproductive Tract Cancer*

35
36 Biological and epidemiological data suggest that several types of HPV (types 16, 18, 31, and 45) constitute
37 the single most important risk factor for cervical dysplasia and invasive cervical cancer.

1 ***STD Complications—Sexually Transmitted HIV/AIDS***
2

3 **10. (Developmental) Reduce to __ percent the incidence of HIV infection among adolescent and**
4 **young adult women (13 to 24 years old) that is associated with heterosexual contact.**
5

6 **Potential Data Source:** HIV/AIDS Surveillance System, CDC.
7

8 Young heterosexual women, especially minority women, are increasingly acquiring HIV infection and
9 developing AIDS. In 1996, 39 percent of reported AIDS cases in 13- to 24-year-olds occurred among
10 young women, and nearly four of every five AIDS cases reported in women occurred in minority women,
11 most of whom were African American or Hispanic. The spread of HIV infection in the United States
12 through heterosexual transmission has closely followed in the footsteps of other STD epidemics.⁷⁵ For
13 example, the geographic distribution of heterosexual HIV transmission in the South closely parallels that of
14 other STDs. There is compelling evidence from all over the world that the presence of other STDs
15 increases the likelihood of both transmitting and acquiring HIV infection.^{76,77} Prospective epidemiological
16 studies from four continents, including North America, have repeatedly demonstrated that when other
17 STDs are present, HIV transmission is at least 2 to 5 times higher than when other STDs are not present.
18 Biological studies demonstrate that when other STDs are present, an individual's susceptibility to HIV
19 infection is increased, and the likelihood of a dually infected person (having HIV infection and another
20 STD) infecting other people with HIV infection is increased. Conversely, effective STD treatment can
21 slow the spread of HIV. STD detection and treatment can substantially reduce HIV transmission at the
22 individual and community levels.
23

24 ***Personal Behavior Objectives***
25

26 ***Initiating Behaviors***
27

28 In 1996, teenagers 15 to 19 years old had the highest reported rates of both chlamydia and gonorrhea.⁷⁸
29 The herpes infection rate among white youth aged 12 to 19 was recently shown to have increased nearly
30 fivefold from a decade before.⁷⁹ However, because not all teenagers are sexually active, the actual rate of
31 sexually transmitted infection among teens is even higher than the observed rates suggest.⁸⁰ In 1995, 50.4
32 percent of 15- to 19-year-old females interviewed for the National Survey of Family Growth indicated that
33 they had sexual intercourse. In the same year, 51.7 percent of adolescent males in high school reported
34 having sexual intercourse by age 16.
35

36 Recent analyses of sexual activity among adolescent females not only illustrate the frequency of such
37 behaviors, but also bring to light that not all sexually experienced young females enter a sexual relationship
38 as a willing partner.⁸¹ In fact, sexual coercion is a significant problem for America's young women. In
39 1995, 16.1 percent of females whose first intercourse occurred when they were 15 years old or younger
40 indicated their first intercourse was not voluntary.⁸² This is an aspect of sexual behavior affecting
41 adolescents that demands increased national and local attention, both for social justice and for health
42 reasons. Sexual violence against women contributes both directly and indirectly to transmission of STDs.
43 Directly, women experiencing sexual violence are less able to protect themselves from STDs or pregnancy.
44 Indirectly, research demonstrates that women with a history of involuntary intercourse are also more likely
45 to have voluntary intercourse at earlier ages, a known risk factor for STDs.⁸³
46

1 ***Modifying Behaviors***
2

3 Correct and consistent condom use interferes with STD transmission.⁸⁴ While condom use has been on the
4 rise in the United States over the past few decades,⁸⁵ women who use the most effective forms of
5 contraception (sterilization and hormonal contraception) are less likely than other women to use condoms
6 for STD prevention.⁸⁶⁻⁸⁸ “Because no single method of preventing STDs or pregnancy confers the
7 maximum level of protection against both conditions, use of dual protection—that is, a condom and
8 another effective contraceptive for pregnancy—is especially important. It is not clear, however, how well
9 the public understands the need for dual protection against STDs and pregnancy.”⁸⁹ Dual methods could
10 help avoid both unwanted pregnancy and STDs.⁹⁰ However, most sexually active young people today do
11 not employ this strategy.⁹¹
12

13 ***Community Protection Objectives***
14

15 ***Community Infrastructure***
16

17 **11. (Developmental) Increase to __ percent the number of public health jurisdictions with**
18 **populations of 200,000 or more that have at least one dedicated sexually transmitted disease**
19 **clinic that provides comprehensive, high-quality* sexually transmitted disease care.**
20

21 * As defined by the most recently published version of CDC’s STD Program Operations Guidelines.
22

23 **12. (Developmental) Increase to __ percent the proportion of schools serving youth in 7th to 12th**
24 **grades in which there are school-based clinics providing either onsite reproductive health**
25 **services or formal offsite referral arrangements for these services.**
26

27 Access to health care is essential for early detection, treatment, and behavior change counseling for STDs.
28 Often, groups with the highest rates of STDs are also the same groups in which access to health services is
29 poor or limited. This may relate to the unavailability of publicly supported STD clinics (present in only 50
30 percent of U.S. public health jurisdictions),⁹² having no health care coverage at all, having coverage that
31 imposes a copayment or deductible in order to get care, or having coverage that does not include the basic
32 preventive health services that having an STD would require. It is essential that health care programs
33 designed to assist poor people with health care services make high-quality STD services available to their
34 clientele.
35

36 ***Health Care Financing Policies***
37

38 **13. (Developmental) Increase to __ the number of State Medicaid contracts ensuring coverage and**
39 **provider reimbursement for STD prevention counseling, STD screening of individuals, and**
40 **where indicated, their treatment and the treatment of their partners.**
41

42 **14. (Developmental) Increase to __ percent the proportion of all local health departments that**
43 **reimburse managed care providers who treat nonplan partners of patients with bacterial**
44 **sexually transmitted diseases (gonorrhea, syphilis, and chlamydia).**
45

46 A careful analysis of STD statistics and trends reveals that STDs disproportionately affect disenfranchised
47 persons and people who are in social networks where both high-risk sexual behavior is common, and either
48 access to care or health-seeking behavior is compromised. Some notably affected groups include sex
49 workers, runaways, adolescents and adults in detention, and migrant workers. These groups are frequently

1 hard to reach even with basic medical care and without publicly supported STD services; many people in
2 these categories have no access to any STD care. Identifying and treating partners of persons with curable
3 STDs has always been an integral part of organized control programs.⁹³ Theoretically, this can break the
4 chain of transmission in a sexual network. Early antimicrobial prophylaxis of the exposed partner
5 interferes with transmission and thwarts infection.

6
7 Partner treatment benefits the index patient by reducing the risk of reinfection by an untreated partner, and
8 the partner benefits by avoiding acute infection and potential complications. Future sex partners are
9 protected by treating partners, thus, as a strategy, this also benefits the community. Because the majority
10 of STD care in the United States is delivered in the private sector, it is especially important that private
11 health care providers, managed care organizations, and health departments work together in the future to
12 overcome barriers to rapid and effective treatment of non-plan sex partners of plan members.

13
14 ***Educational Curriculum Policies***

15
16 **15. (Developmental) Increase to __ the number of schools for health care providers (medical,
17 osteopathy, nursing (R.N.), family planning nurse practitioners, nurse midwives, and physician
18 assistants) with both a required sexual health didactic (including sexual history and sexually
19 transmitted disease [STD], HIV, and contraception counseling) and clinical experience in
20 primary health care to ensure interactions with patients needing STD, HIV, and contraception
21 services.**

22
23 (Objective for schools providing reproductive health education appears in the Family Planning chapter.)

24
25 While sexuality is considered a normal aspect of human functioning, Americans are nevertheless secretive
26 and private about their sexual behavior. Talking openly and comfortably about sex and sexuality is
27 difficult even in our most intimate relationships. “The secrecy surrounding sexuality and STDs adversely
28 impacts on STD prevention in the United States by impeding sexuality and STD education programs for
29 adolescents, hindering communication between parents and their children and between sex partners,
30 promoting unbalanced sexual messages in mass media, compromising education and counseling activities
31 of health care professionals, hindering community activism regarding STDs, and impeding research on
32 sexual behaviors.”⁹⁴ Because only a small percentage of adolescents receive any STD prevention
33 information from parents, and schools are the main source of STD information for most teenagers, school-
34 based interventions can play a significant role in educating and informing youth about STD exposure and
35 transmission issues, and motivating them to modify their behaviors.⁹⁵ Both school-based health education
36 and school-based health services programs are potentially beneficial to youth.⁹⁶

37
38 ***Broadcast Media Policies***

39
40 **16. (Developmental) Increase to __ percent the number of principal television networks that
41 include positive messages related to responsible sexual behavior during weekday and nightly
42 prime time programming.**

43
44 While Americans are bombarded by sexual messages and images, there is still very little informed, high-
45 quality STD prevention advice or discussions of contraception, sexuality, and the risks of early,
46 unprotected sexual behavior, especially on television. It has been observed that popular television
47 programs often depict as many as 25 instances of sexual incidents for every one instance of protective
48 behavior or discussion of STDs or pregnancy prevention.⁹⁷

1 **Personal Health Services Objectives**

2
3 **Screening and Treatment for STDs and Their Complications**

4
5 **17. (Developmental) Increase to __ percent the proportion of sexually active women under the age**
6 **of 25 who are screened annually for genital chlamydia infections in primary health care**
7 **settings.***

8
9 * As measured by percent screened in family planning clinics, community health centers, university
10 health services, Department of Defense health clinics for active duty military, and managed care
11 plans.

12
13 **18. (Developmental) Increase to __ percent the proportion of pregnant women screened for STDs**
14 **including HIV infection, during prenatal health care visits* according to recommendations in**
15 **the most recent edition of the *Guide to Clinical Preventive Services*.**

16
17 * As measured by percent screened in community health centers, Department of Defense health clinics
18 for active duty military, and managed care plans.

19
20 **19. (Developmental) Increase to __ percent of youth detention facilities and adult city/county jails**
21 **in which screening for common bacterial STDs is conducted within 24 hours of admission and**
22 **treatment (when necessary) is given before release.**

23
24 **20. (Former 19.13) Increase to at least 90 percent the proportion of primary care providers treating**
25 **patients with sexually transmitted diseases who manage cases according to the most recent CDC**
26 **Guidelines for the Treatment of STDs. (Baseline: 70 percent of primary care providers in 1988)**

27
28 **Target Setting Method:** Retain year 2000 target.

29
30 **Data Source:** National Disease and Therapeutic Index, IMS America.

31
32 Screening and treatment of STDs affect both transmission and duration factors. For curable STDs,
33 screening and treatment can be cost-effective, or even cost-saving, for altering the period during which
34 infected persons can infect others. Screening for STDs clearly meets the criteria for an effective preventive
35 intervention.⁹⁸ For STDs that are frequently asymptomatic, screening and treatment also benefit those
36 likely to suffer severe complications (especially women) if infections are not detected and treated early.⁹⁹
37 For example, chlamydia screening in a large metropolitan managed care organization reduced the
38 incidence of subsequent PID in the screened group by 56 percent.¹⁰⁰ As evidenced by sustained screening
39 for chlamydia in Region X, the burden of disease in the population was reduced by 60 percent in 5
40 years.¹⁰¹ When combined with a new generation of sensitive and rapid diagnostic tests, some of which can
41 be performed on a urine specimen, STD screening of specific high-risk populations in nontraditional
42 settings appears to be a promising control strategy that will gain strength in the next decade.^{101a}

43
44 Chlamydia infection rates among men are highest among the 20- to 24-year-old age group. While there is
45 insufficient evidence to recommend for or against routine screening in sexually active men, in situations
46 where asymptomatic chlamydia infection is high in men, screening using urine-based tests may be
47 recommended to prevent spread of the infection (U.S. Preventive Services Task Force, 1996).^{101b}

1 **Partner Services**
2

3 **21. (Developmental) Increase to __ percent the proportion of all STD clinic patients treated for**
4 **bacterial STDs (chlamydia, gonorrhea, syphilis) who are offered provider referral services for**
5 **sexual partners.***
6

7 * Provider referral (previously called contact tracing) is the process whereby health department
8 personnel directly and confidentially notify the sexual partners of infected individuals of their
9 exposure to a sexually transmitted disease for the purposes of education, counseling, and referral to
10 health care services.
11

12 Active partner notification and partner treatment have been the traditional responsibility of personnel in
13 public STD clinics. New approaches for getting more partners treated by involving index patients in the
14 process of referring their partners for evaluation and treatment or using different approaches to sexual
15 network analysis are currently being assessed both in traditional and nontraditional STD treatment
16 settings.^{102,103}
17

18 **Immunization**
19

20 Vaccines minimize the probability of infection given exposure. While vaccines for some STDs are in
21 various stages of development, there is an effective and widely available vaccine for hepatitis B.^{104,105}
22 Unfortunately, hepatitis B vaccine coverage remains low, especially in high-risk groups, mainly because of
23 lack of awareness among health care providers, limited opportunity to reach high-risk youth in traditional
24 health care settings, and limited financial support for wide-scale implementation of this effective
25 intervention, especially for high-risk adults.
26

27 **Counseling**
28

29 **22. (Developmental) Increase to __ percent the proportion of primary care and mental health care**
30 **providers who received reimbursement for counseling on contraception, pregnancy, the**
31 **prevention of HIV, or sexually transmitted diseases.**
32

33 **23. (Developmental) Increase to __ percent the proportion of health care providers who initiate a**
34 **discussion of HIV/sexually transmitted disease prevention during an initial visit with female**
35 **patients who request reproductive health services.**
36

37 Changing sexual behaviors and sexual norms will be an important part of any long-term strategy to develop
38 a more effective national system of STD prevention in the U.S. It will be necessary for a new sexual
39 openness to become the norm in America—an openness that will both allow and expect parents to talk
40 frankly and comfortably with their children about preferred behavior and avoiding risks, sex partners to
41 talk openly about safe behaviors, and health care providers to talk comfortably and knowledgeably with
42 patients about sexuality and sexual risk, counsel them about risk avoidance, and regularly screen them for
43 STDs when indicated.¹⁰⁶
44

45 **Related Objectives From Other Focus Areas**
46

47 **Injury/Violence Prevention**

- 48 35 Physical abuse by intimate partners
49 36 Forced sexual intercourse

1 38 Sexual assault other than rape

2

3 **Family Planning**

4 7 Adolescent pregnancy

5 9 Adolescent sexual intercourse

6 10 Pregnancy and STD preventive methods

7 11 Pregnancy prevention education

8 12 School requirement for classes on human sexuality, pregnancy prevention, etc.

9 13 Impaired fecundity

10

11 **Maternal, Infant, and Child Health**

12 5 Fetal death

13 6 Perinatal mortality

14 9 Preconception counseling

15 10 Prenatal care

16 15 Very low birthweight babies born at level III hospitals

17 17 Low birthweight

18 18 Preterm birth

19

20 **Cancer**

21 4 Cervical cancer deaths

22 10 Pap tests

23

24 **HIV**

25 2 HIV incidence

26 3 Condom use

27 4 Screening for STDs and immunization for hepatitis B

28 8 Classroom education on HIV and STDs

29

30 **Immunization and Infectious Diseases**

31 4 Hepatitis B in infants

32 5 Hepatitis B, under 25

33 6 Hepatitis B in adults

34 7 Deaths from hepatitis B-related cirrhosis and liver cancer

35

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